

## Mary Agnes Chase (1869–1963)



Mary Agnes Chase, about 1956. Photo courtesy of Smithsonian Institution.

Mary Agnes Chase was one of many early USDA botanists whose amateur botanizing led to a respected and illustrious professional career. She was an “acknowledged world expert on American grasses”<sup>1</sup> and recognized as the “dean of agrostologists.”<sup>2</sup>

In the late 1890s, Chase’s interest in plant collecting led to an acquaintance with bryologist [Ellsworth Jerome Hill](#), who became a mentor and friend.<sup>3</sup> Hill asked Chase to make botanical illustrations for some of his

publications, and that led to work as a botanical illustrator for [Charles Frederick Millspaugh](#) at the [Field Museum of Natural History](#) in Chicago.<sup>4</sup>

In 1903, Agnes Chase was hired as a botanical illustrator by the USDA’s Division of Grain and Forage Plant Investigations. She spent her spare time working in the USDA’s grass herbarium where she became acquainted with [Albert Spear Hitchcock](#). Chase began to work with Hitchcock directly in 1905 as a scientific assistant of systematic agrostology.<sup>5</sup> Starting in 1906, she published a series of articles on the genera of *Paniceae*.<sup>6</sup>

Chase and Hitchcock shared a love of the world’s grasses and had a long and prolific working relationship at the USDA. After Hitchcock’s death in 1935, Chase succeeded to the position of Senior Botanist in Charge of Systematic Agrostology.<sup>7</sup> Over the course of her career working with the USDA’s Grass Herbarium (which was transferred to the Smithsonian Institution in 1912),<sup>8</sup> Chase traveled extensively to collect grass specimens in the United States and South America, contributing over 12,200 plants.<sup>9</sup>

Chase authored numerous publications, the best known of which are still influential today: [First Book of Grasses: the structure of grasses explained for beginners](#) (1922), a revised edition of Hitchcock’s *Manual of the Grasses of the United States* (1950), and in 1962, she and C.D. Niles brought the work of generations of USDA grass scientists to fruition with the publication of the *Index to Grass Species*, which was first begun by [Frank Lamson-Scribner](#). At the time, she was 93 years old.<sup>10</sup>

As a woman, Chase sometimes encountered barriers in her scientific career. At times she – unlike her male colleagues – had to pay her own way on collecting trips, or was denied participation in scientific projects, such as a survey of the Panama Canal region in 1911.<sup>11</sup> These experiences inspired her involvement with the women's suffrage movement,<sup>12</sup> and in 1918 she was jailed and almost fired by the USDA for her activities.<sup>13</sup> For the rest of her career, she made an effort to support and mentor women and minority scientists.<sup>14</sup>

After retiring from the USDA at the age of 70 in 1939, Chase remained active in her field. She continued to work for the Smithsonian Institution in the National Herbarium where she was honorary curator of the grasses until her death at age 94.<sup>15</sup>

### **For more information on Agnes Chase:**

Adams, Katherine H. , and Michael L. Keene. *After the Vote was Won: the Later Achievements of Fifteen Suffragists*. Jefferson, NC: McFarland & Co., 2010.

Henson, Pamela M. "What Holds the Earth Together: Agnes Chase and American Agrostology." *Journal of the History of Biology* 36 (2003): 437-460.

Hunt Institute for Botanical Documentation. "Mary Agnes Chase," *Hitchcock-Chase Collection*  
<http://huntbot.andrew.cmu.edu/HIBD/Departments/Art/HitchcockChase.shtml>

Sherow, James Earl. *The Grasslands of the United States: an Environmental History*. ABC Clio, 2007.

Stieber, Michael T. *Notable American Women: the Modern Period: a biographical dictionary*. Cambridge, Mass.: Belknap Press, 1980.

### **Archival Collections related to Agnes Chase:**

Smithsonian Institution Archives: United States National Museum, Division of Grasses, Records, 1884, 1888, 1899-1965. (SIA RU000229)  
[http://siarchives.si.edu/collections/siris\\_arc\\_216795](http://siarchives.si.edu/collections/siris_arc_216795)

Hunt Institute for Botanical Documentation. *Hitchcock-Chase Collection*.  
<http://huntbot.andrew.cmu.edu/HIBD/Departments/Art/HitchcockChase.shtml>

## Selected Publications by Chase on Grasses:

Chase, Agnes. [\*Notes on genera of Paniceae : I-IV.\*](#) Proceedings of the Biological Society of Washington 19, 21, 24 (1906-1911).

Hitchcock, A. S. , and A. Chase. [\*The North American Species of Panicum.\*](#) Contributions from the U.S. National Herbarium no. 15. Washington, DC: Government Printing Office, 1910.

Chase, M. A. *First Book of Grasses: The Structure of Grasses Explained for Beginners.* New York: Macmillan, 1922.

Chase, Agnes. *The North American Species of Paspalum.* Contributions from the U.S. National Herbarium no. 28. Washington, DC: Government Printing Office, 1929.

Hitchcock, A. S. [\*Manual of the Grasses of the United States.\*](#) USDA Miscellaneous Publication No. 200, 2nd ed. Revised by Agnes Chase. Washington, DC: Government Printing Office, 1950.

Chase, M. A. , and C. D. Niles, *Index to Grass Species.* 3 volumes. Boston: G. K. Hall, 1962.

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<sup>1</sup> James Earl Sherow, *The Grasslands of the United States: an environmental history* (ABC Clío, 2007) 273.

<sup>2</sup> Leonard Carmichael, forward to *First Book of Grasses: the structure of grasses explained for beginners*, 3<sup>rd</sup> ed. (Washington, DC: Smithsonian Institution, 1959) v.

<sup>3</sup> Michael T. Stieber, *Notable American Women: the Modern Period: a biographical dictionary* (Cambridge, MA: Belknap Press, 1980) 147.

<sup>4</sup> Carmichael, v-vi.

<sup>5</sup> Stieber, 147.

<sup>6</sup> Carmichael, vi.

<sup>7</sup> Hunt Institute of Botanical Documentation, "Mary Agnes Chase," *Hitchcock-Chase Collection* <http://huntbot.andrew.cmu.edu/HIBD/Departments/Art/HitchcockChase.shtml>

<sup>8</sup> Stieber, 147.

<sup>9</sup> Ibid. Not all of the plants in this number were grasses, though the majority were.

<sup>10</sup> Ibid.

<sup>11</sup> Pamela M. Henson, "What Holds the Earth Together: Agnes Chase and American Agrostology," *Journal of the History of Biology* 36 (2003): 442-443.

<sup>12</sup> Katherine H. Adams and Michael L. Keene, *After the Vote was Won: the Later Achievements of Fifteen Suffragists* (Jefferson, NC: McFarland & Co., 2010) 74.

<sup>13</sup> Henson, 442.

<sup>14</sup> Henson, 449-450.

<sup>15</sup> Carmichael, vi.